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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,786	05/15/2001	Kazuhiko Maejima	7217/64554	9099

7590 09/09/2005

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EXAMINER	
AU, GARY	

ART UNIT	PAPER NUMBER
2611	

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/855,786	MAEJIMA ET AL.	
	Examiner	Art Unit	
	Gary Au	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3. MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-8 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-8 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 5/15/2001 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ~~5/15/2001~~. 10/9/2001
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figure 1-3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,014,349 Kubo et al. (Kubo).

Considering claim 1, Kubo teaches that a tuner apparatus (figure 1, col. 3 lines 35-52) comprising:

a mixer circuit (first mixer 5 – figure 3, col. 3 lines 53-63) for frequency-converting CATV broadcast wave signals supplied from a CATV broadcasting receiver into those to fall within the bandwidth of intermediate-frequency signals of satellite TV broadcasting supplied from a satellite TV broadcasting receiver and outputting first intermediate-frequency signals;

a quadrature detector circuit (second mixer 9 – figure 3, col. 4 lines 4-36) to which said satellite TV broadcasting intermediate-frequency signals and said first intermediate-frequency signals are inputted; and

an oscillator circuit (second local oscillator 10 – figure 3, col. 4 lines 21-23) for supplying oscillation signals to said quadrature detector circuit;

wherein when the tuner receives satellite TV broadcasting, said oscillator circuit supplies oscillation signals in a predetermined frequency band and (900-1000 MHz, col. 4 lines 16-18) of a predetermined phase to said quadrature detector circuit where said satellite TV broadcasting intermediate-frequency signals supplied thereto are demodulated into base band signals by using said oscillation signals; and

wherein when the tuner receives CATV broadcasting (terminal A – figure 3, col. 3 lines 37-52), said oscillator circuit supplies oscillation signals in a predetermined frequency band to said quadrature detector circuit where said first intermediate-frequency signals supplied thereto are frequency-converted into second intermediate-frequency signals by using said oscillation signals (col. 4 line 50 - col. 5 line 5).

Considering claim 2, Kubo teaches that a first intermediate-frequency amplifier disposed between said satellite TV broadcasting receiver and said quadrature detector circuit (first IF Amplifier 22 – figure 3, col. 3 lines 53-57).

Considering claim 3, Kubo teaches that the tuner receives said satellite TV broadcasting (terminal C – figure 3, col. 3 lines 53-63), said intermediate-frequency signals obtained by receiving the satellite TV broadcasting are supplied through said mixer circuit to said quadrature detector circuit and said mixer circuit operates as said first intermediate-frequency amplifier (first mixer 5 – figure 3, col. 3 lines 53-63).

Considering claim 4, Kubo teaches a tuner apparatus (figure 1, col. 3 lines 35-52) comprising:

a satellite TV broadcasting receiver for receiving satellite TV broadcast wave signals and outputting satellite TV broadcasting intermediate-frequency signals (terminal C – figure 3, col. 3 lines 53-63);

a terrestrial TV broadcasting or CATV broadcasting receiver for receiving CATV broadcast wave signals (terminal A – figure 3, col. 3 lines 37-52),

a mixer circuit (first mixer 5 – figure 3, col. 3 lines 53-63) for frequency-converting said CATV broadcast wave signals into those to fall within the bandwidth of said satellite TV broadcasting intermediate-frequency signals by using first oscillation signals in a predetermined frequency band and outputting first intermediate-frequency signals,

a quadrature detector circuit (second mixer 9 – figure 3, col. 4 lines 4-36) to which said satellite TV broadcasting intermediate-frequency signals and said first intermediate-frequency signals are inputted;

a first oscillator circuit (first local oscillator 6 – figure 3, col. 4 lines 12-14) for supplying said first oscillation signals to said mixer circuit; and

a second oscillator circuit (second local oscillator 10 – figure 3, col. 4 lines 21-23) for supplying second oscillation signals to said quadrature detector circuit;

wherein when the tuner receives satellite TV broadcasting, said second oscillator circuit supplies said second oscillation signals in a predetermined frequency band and of a predetermined phase to said quadrature detector circuit where said satellite TV broadcasting intermediate-frequency signals supplied thereto are demodulated into baseband signals by using said second oscillation signals; and

wherein when the tuner receives terrestrial TV broadcasting or CATV broadcasting, said second oscillator circuit supplies said second oscillation signals in a predetermined frequency band to said quadrature detector circuit where said first intermediate-frequency signals supplied thereto are frequency-converted into second intermediate-frequency signals by using said second oscillation signals (col. 4 lines 21-23).

Considering claim 5, Kubo teaches that a first intermediate-frequency amplifier disposed between said satellite TV broadcasting receiver and said quadrature detector circuit (first IF amplifier – figure 3, col. 3 lines 53-57).

Considering claim 6, Kubo teaches that a first intermediate-frequency filter disposed between said satellite TV broadcasting receiver and said quadrature detector circuit or said mixer circuit and said quadrature detector circuit (BPF 8 – figure 3, col. 4 lines 19-20).

Considering claim 7, Kubo teaches that an input bandpass filter disposed behind said satellite TV broadcasting receiver or said CATV broadcasting receiver (input filter 21 – figure 3, col. 1 lines 35-38).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,014,349 Kubo et al. (Kubo) as applied to claim 4 above, and further in view of US Patent No. 4,933,860 (Liu).

Considering claim 8, Kubo teaches the system as described above.

Kubo does not teach that the mixer circuit operates as a first intermediate-frequency amplifier.

In an analogous art, Liu teaches that the intermediate-frequency signals obtained by receiving the satellite TV broadcasting are supplied through said mixer circuit (mixer 3 – figure 1) to said quadrature detector circuit and said mixer circuit operates as said first intermediate-frequency amplifier (IF AMP 4 – figure 1, col. 2 lines 25-30).

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Kubo's system to make the mixer circuit operates as a first intermediate-frequency amplifier, as taught by Liu, for the advantage of easier assembly.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 6,094,236 (Abe et al.) teaches a tuner circuit comprising a first frequency conversion means for converting a high frequency input signal into a first intermediate frequency input signal into a first intermediate frequency signal. US Patent No. 6,634,027 (Johnson) teaches communications circuitry comprising integration circuitry coupled to interface circuitry. US Patent No. 5,666,170 (Stewart) teaches an adaptive receiver includes an adaptive decoder for providing decoded output data from a video signal encoded for satellite, terrestrial or cable transmission.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary Au whose telephone number is (571) 272-2822. The examiner can normally be reached on 8am-4pm Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GA

HAI TRAN
PRIMARY EXAMINER